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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group

Art Unit: Unknown

Attorney

Docket No.: SHC0104

Applicant: Toshio KOBAYASHI et al.

Invention: ELASTICALLY STRETCHABLE COMPOSITE
SHEET AND PROCESS FOR MAKING THE
SAME

Serial No: Unknown

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Examiner: Unknown

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D.C. 20231

on January 19, 2001


Michael S. Gzybowski

PRELIMINARY AMENDMENT

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Prior to the examination of the above-identified application, please amend the application
as follows:

IN THE SPECIFICATION

On page 1, line 14, after "gathers" insert - -between- -
line 16, delete "one"

On page 2, line 5, delete "to"
line 17, after "least" insert - -at- -

On page 4, line 7, after "is" insert - -a- -

line 9, after "minimize" insert - -the- -

On page 5, line 4, delete "is reduced"

line 12, change "reduce, in the" to - -provide a- -

line 13, change "the" to - -an- -

line 14, change "the" first occurrence to - -an- -; change "of prior art, the"
to - -in which a- -

line 15, before "sufficiently" insert - -is- -; change "to improve" to - -
reduced so as to improve- -

line 16, change "these" to - -heat-sealing of the- -; after "and" second
occurrence insert - -the- -

line 17, delete "to be heat sealed"

line 18, change "by the first" to - -according to one embodiment of the- -

lines 19-20, change "the second" to - -to another embodiment of the- -

line 22, and Page 6, line 1, change "The first invention proposes an
improvement in the stretchable composite sheet comprising" to - -

According to one embodiment, the invention provides- -

Page 6, lines 6-7, change "The improvement according to this first invention is in
that:" to - -In this embodiment,- -

line 8, change ";" to - -, - -

line 9, after "and" insert - -is- -

line 10, change "directions component" to - -directions. Component- -

line 13, delete "the"

line 21, delete "first invention relating to the"

Page 7, line 1, after "and" insert - -the- -

line 5, change "The second invention proposes an improvement in the" to

- -According to a- -

line 6, change "a composite sheet comprising" to - -the composite sheet,

a- -

line 8, change "and" to - -is joined to at least one surface of a- -

line 10, after "direction" insert - -, - -

lines 10-11, delete "wherein the first web is joined to at least one surface
of the second web"

lines 14-15, delete "The improvement according to the second intention is
in that:"

line 15, change "the" to - -The- -

line 20, after "%" change ";" to - -, - -

line 21, change "the" to - -The- -

line 22, change "direction: and these" to - -direction. The- -

Page 9, line 9, change "by" to - -in- -

line 18, after "is" insert - -an- -

Page 10, line 17, change "by" to - -from- -

line 23, change "by" to - -from- -

Page 11, line 8, change "the" to - -a- -

line 13, change "streams" to - -stream- -

Page 12, line 17, change "1" to - -31- -

Page 13, line 15, change "to maintain" to - -of maintaining- -

line 17, change "progresses" to - -progress- -; after "progress" insert

- -occurs- -

Page 22, line 22, change "diaper" to - -diapers- -; change "napkin" to - -napkins- -;

after "pants," insert - -and- -

line 23, change "gown" to - -gowns- -

Page 23, line 2, change "allow" to - -allows- -

IN THE CLAIMS

Please amend claims 1-6 as follows:

1. (Amended) A stretchable composite sheet comprising:

an elastic sheet having a stretchability in at least one of two directions that are orthogonal to each other; and

a [sheet-like] fibrous assembly in the form of a sheet having a stretchability in [said] one of said at least two directions and joined to at least one surface of said elastic sheet, [said elastic sheet being stretchable in said one direction at least by 80 %; and] said fibrous assembly having an inelastic stretchability and being joined to said elastic sheet at binding [spots] sites that are arranged intermittently [in] along said two directions, [component fibers constituting] said fibrous assembly comprising component fibers that are [being] curved between [each pair] adjacent pairs of said binding sites [spots adjacent to each other in] along said one [direction] of said at least two directions, [wherein] said component fibers [are formed by fibers each] comprising ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture thereof [of at least two selected from said copolymers] at 100 ~ 10 % by weight.

2. (Amended) The stretchable composite sheet according to Claim 1, wherein said component fibers further comprise [a mixture of any one of said copolymers and] propylene homopolymer [and content of said homopolymer is] at 0 - 90 % by weight.

4. (Amended) A process for making a stretchable composite sheet comprising the steps of:

a) providing a first web made of thermoplastic synthetic fiber and being inelastically stretchable in one direction, said first web being formed from fibers that comprise ethylene/propylene copolymer containing ethylene at 0.5 - 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10 % by weight and butene at 0.5 - 15 % by weight, or a mixtures thereof at 100 - 10 % by weight and having a breaking extension of at least 150 %; [and]

b) providing a second web made of thermoplastic synthetic resin and being elastically stretchable at least in said one direction, said second web being elastically stretchable by at least 80 % in said one direction ; [wherein said first web is joined to at least one surface of said second web so that said composite sheet may be elastically stretchable: in said one direction;

said process further comprising:

said first web is formed by fibers each: comprising ethylene/propylene copolymer containing ethylene at 0.5 - 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10 % by weight and butene at 0.5 - 15 % by weight, or a mixture of at least two selected from these copolymers at 100 - 10 % by weight and has a breaking extension of at least 150 %; said second web being elastically stretchable by at least 80 % in said one direction; and said first and second webs being joined to each other and stretched to form said stretchable composite sheet by the process comprising the steps of:]

c) [a)] continuously feeding said first web in said one direction;

d) [b)] continuously feeding said second web in said one direction and placing said second web upon said first web;

e) [c)] joining said first and second webs having been placed upon each other in step d) [b)] to each other intermittently in said one direction and in the direction orthogonal to said one direction, at least in said one direction;

f) [d)] stretching said first and second webs having been jointed to each other in step e) [c)] in said one direction and said direction orthogonal to said one direction, at least in said one direction within an elasticity limit of said second web and within a breaking extension of said first web; and

g) [e)] [leaving] allowing said first and second webs having been stretched in step f) [d)] contract to obtain said composite sheet.

5. (Amended) The process according to Claim 4, wherein said first and second webs are stretched at least 80 % in said step [d).] f).

6. (Amended) [The] A stretchable composite sheet obtained by the process according to Claim 4.

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By the present Preliminary Amendment, the specification and claims have been revised to more clearly describe applicants' invention in accordance with the requirements of 35 U.S.C. § 112.

Care has been taken so as to avoid the addition of new matter in the specification and claims.

Entry of the present Preliminary Amendment prior to the examination of the application is respectfully requested.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Respectfully submitted,



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